

Application No. 10/662,785

In the Claims

1-24. (Canceled)

25. (Currently Amended) A method of preparing a zinc electrode composition ~~for use in preparing a zinc electrode~~ including the steps of:

1. Preparing a first precipitate of zinc hydroxide;
2. ~~Nonreactively mixing~~ Mixing a solution of an alkali salt of either a C₆-C₃₀ fatty acid or a C₆-C₃₀ alkyl sulfonic acid with a suspension of the first precipitate; and
3. Adding a solution of a salt of a mineral acid to the mix to provide the composition as a second precipitate;

wherein the composition is a mixture of:

(i) zinc hydroxide; ~~or~~

~~(ii) zinc oxide and zinc hydroxide;~~

and an insoluble salt of either a C₆-C₃₀ fatty acid or a C₆-C₃₀ alkyl sulfonic acid.

26. (Original) A method as claimed in Claim 25 wherein the first precipitate includes graphite.

27. (Original) A method as claimed in Claim 25 wherein the solution of an alkali salt of either a C₆-C₃₀ fatty acid or a C₆-C₃₀ alkyl sulfonic acid is saturated with zinc.

28. (Original) A method as claimed in Claim 25 wherein the alkali salt of either a C₆-C₃₀ fatty acid or a C₆-C₃₀ alkyl sulfonic acid is an alkali salt of a naturally occurring C₁₂-C₂₂ fatty acid.

29. (Original) A method as claimed in Claim 25 wherein the alkali salt of either a C₆-C₃₀ fatty acid or a C₆-C₃₀ alkyl sulfonic acid is an alkali metal salt of stearate.

30. (Original) A method as claimed in Claim 25 wherein the alkali salt of either a C₆-C₃₀ fatty acid or a C₆-C₃₀ alkyl sulfonic acid is potassium stearate.

31. (Original) A method as claimed in Claim 30 wherein the salt of a mineral acid is zinc sulphate.

32. (Previously Amended) A method as claimed in Claim 30 wherein the composition is a mixture of zinc stearate and either zinc hydroxide or a combination of zinc oxide and zinc hydroxide.

33. (Previously Amended) A method as claimed in Claim 32 wherein the molar ratio of zinc stearate to either zinc hydroxide or a combination of zinc oxide and zinc hydroxide is in the range 0.0001:1 to 0.5:1.

34. (Original) A method as claimed in Claim 32 wherein the range is 0.05:1 to 0.4:1.

35. (Original) A method as claimed in Claim 32 wherein the range is 0.075:1 to 0.25:1.

36. (Original) A method as claimed in Claim 32 wherein the salt of a mineral acid is calcium nitrate.

37. (Previously Amended) A method as claimed in Claim 36 wherein the composition is a mixture of calcium stearate and either zinc hydroxide or a combination of zinc oxide and zinc hydroxide.

38. (Previously Amended) A method as claimed in Claim 37 wherein the molar ratio of calcium stearate to either zinc hydroxide or a combination of zinc oxide and zinc hydroxide is in the range 0.0001:1 to 0.2:1.

39. (Original) A method as claimed in Claim 37 wherein the range is 0.01:1 to 0.1:1.

40. (Original) A method as claimed in Claim 37 wherein the range is 0.03:1 to 0.15:1.

41-87. (Canceled)